730
Articulated Truck

Engine 3196C ATAAC	
Gross Power	242.3 kW/325 hp
Flywheel Power	228 kW/305 hp
Weights	
Rated Payload	27.2 t
Body Capacities	
Heaped SAE 2:1	16.3 m^3

730 Articulated Trucks

The 730 Caterpillar® articulated truck is Simply The Best.

Performance and Productivity - Powertrain
High power Cat® 3196C ATAAC electronic engine, electronically controlled transmission, and a new faster acting, more powerful retarder deliver the performance needed to get the job done. **pg. 4**

Performance and Productivity
Cross-axle differential locking system provides full driveline locking for maximum performance in adverse conditions. New front suspension provides a smoother ride allowing the operator to travel faster over rough terrain. **pg. 5**

Durability and Reliability
The 730 has built-in durability and reliability. Cat purpose-built, articulated truck drivetrain components, improved front frame and hitch assure top performance in the toughest applications. **pg. 6**

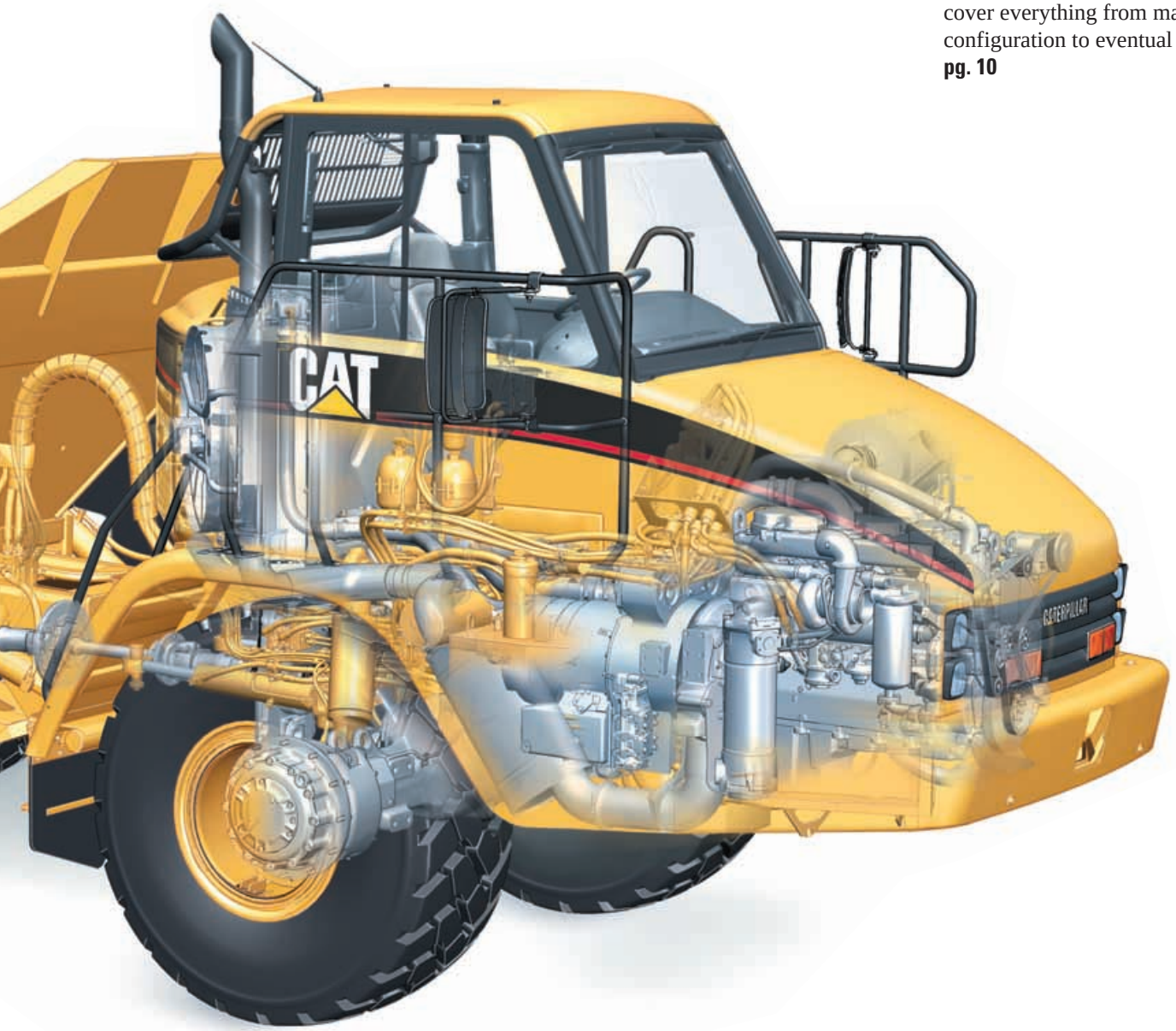
Better than all the rest, the 730 offers proven reliability and durability, high performance, low fuel consumption, operator comfort and low operating costs.

Operator Comfort
Larger center-mounted cab, new oscillating front axle, Cat Comfort seat and increased storage space provide exceptional operator comfort. **pg. 7**

Ease of Operation
Ergonomically designed wrap-around dash, tilt and telescoping steering wheel, easy to reach controls and better all around viewing promote fast, confident machine operation for top productivity. **pg. 8**

Serviceability
Longer service intervals and easier maintenance result in better machine availability, lower owning and operating costs. **pg. 9**

Complete Customer Support
Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. The dealer will help you choose a plan that can cover everything from machine configuration to eventual replacement. **pg. 10**



Performance and Productivity – Powertrain

Integrated Powertrain – More Power, Greater Performance and Lower Fuel Consumption.

3196C Electronic Engine. The 3196C electronic engine offers high horsepower and complete system integration of the engine and transmission for maximum efficiency.

High Torque Rise. Provides unequaled lugging force during acceleration, on steep grades and in tough underfoot conditions.

Turbocharged and Air-to-Air Aftercooled. Provides improved fuel economy by packing cooler, denser air into cylinders for more complete combustion of fuel and lower emissions.

Electronic Control Module. ECM-Advanced Diesel Engine Management 2000 provides improved emissions, performance, advanced trouble shooting and diagnostic capabilities.

Fuel Efficiency. The electronically controlled, computer-actuated unit injection fuel system has high injection pressure for complete fuel combustion, greater fuel efficiency and reduced emissions.

Engine Construction. Caterpillar designed one-piece cast iron block provides strength and maximum durability. Two-piece articulated pistons with forged steel crowns withstand higher cylinder pressure.

Electronic Transmission. The new electronically controlled transmission is designed specifically for the articulated truck and its applications.

Electronic Clutch Pressure Control. The ECPC technology works with the patented Controlled Throttle Shifting (CTS) to manage shift torque and provide exceptional shift smoothness.

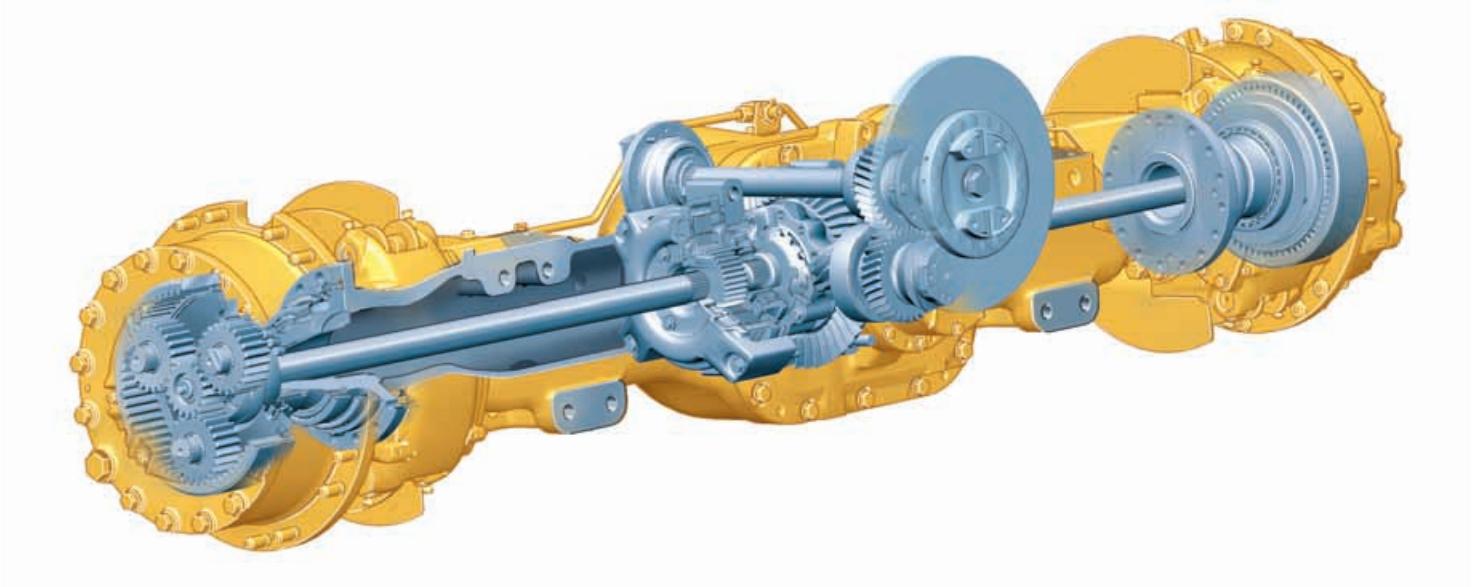
Controlled Throttle Shifting. CTS significantly reduces powertrain stress and clutch wear by controlling engine speed, torque converter lock up and transmission clutch engagements.

Retarder. The 730 features an integral retarder with a new high-power density design. Due to its compact size, the unit quickly fills with oil, providing faster, fuller response.

Retarder Power. Increased power capability gives operators greater control on short, steep grades and minimizes the need to apply the brakes, resulting in extended service brake life.

Performance and Productivity

Productivity in All Conditions – All Terrain All the Time.



Traction Control. Inter-axle differential lock and cross-axle differential locks provide 100% driveline locking. All differentials are hydraulically actuated, oil-immersed, multi-plate clutch type that can be engaged and disengaged on-the-go for maximum versatility.

Inter-axle Differential Lock. Locks all three axles together for excellent traction in poor underfoot conditions. It is operated by a switch incorporated into the footrest.

Cross-axle Differential Locks. Provides full driveline locking – all three axles and all six wheels for maximum performance in the most adverse conditions. Acts in unison with the inter-axle differential lock when the footswitch is actuated and is selected via the dash-mounted switch.

Front Suspension. The 730's new front suspension oscillates ±6° to provide a smoother ride allowing the operator to travel faster over rough terrain and softening impact loads on structures and components.

Front Suspensions Cylinders. Front suspension cylinders are designed for tough applications and offer a soft and smooth ride.

Construction. The front suspension uses an oscillating A-frame with a lateral tie rod to control axle sideways movement.

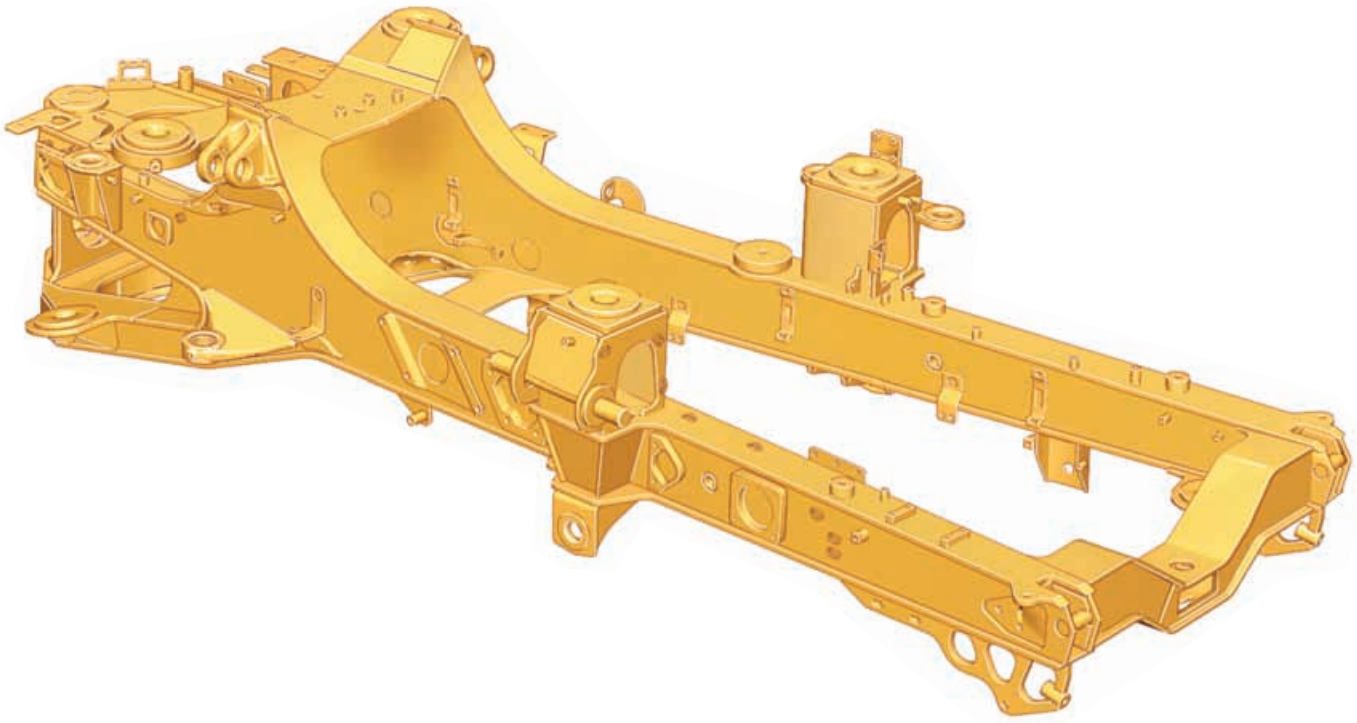
Truck Transport. The new suspension system eliminates the need to lower the suspension when transporting the truck, reducing maintenance and downtime.

Mounting Points. Suspension mounting points are integrated into the axle housing, increasing reliability.

Rear Suspension. The rear suspension features a mechanical walking beam geometry that extends component life and provides a stable ride for excellent load retention.

Durability and Reliability

High Availability Leads to High Productivity.



Front Frame. An all new design with large box-section, wide and stiff frame beams to handle torque loads.
The divergent frame design decreases stress in the hitch area and optimizes suspension geometry. The frame has been designed to make maximum use of robotic welding for increased durability.

Rear Frame. Twin-box construction minimizes stress concentration and provides low weight with long service life.

Castings. The front and rear frames make extensive use of heavy-duty steel castings to handle stress concentrations.

Articulating/Oscillating Hitch.
The articulating hitch provides the truck with steering articulation and the oscillation ensures the truck maintains all wheel ground contact in rough terrain.

Hitch Construction. A new two-piece construction featuring a strong and durable cast steel head bolted to a hard wearing forged steel tube. The hitch tube features larger, hardened bearing areas and a hardened thrust face for reduced maintenance and longer life.

Caterpillar Powertrain Components.
The 730 features Purpose Designed Earthmoving Components from the engine through to the final drives. Proven in articulated trucks and other Caterpillar equipment, these rugged building blocks ensure long life and reliability.

Operator Comfort

The Operator's Office, High Productivity from a Comfortable, Motivated Operator.

Ride Comfort. The new front suspension with its oscillating axle and low pressure ride struts, combined with the new center-mounted cab, offer unrivaled levels of ride comfort for the operator in all driving conditions.

Sound Levels. Cab mounts are designed to reduce noise and vibration in the cab. All connections to the cab are resiliently mounted and the cab itself makes extensive use of sound absorbing and barrier materials to keep sound levels low.

Spacious Cab. The 730 features more interior space than the E Series II, giving it one of the roomiest operator stations in the industry.

Heating/Ventilation/Air Conditioning. Stay warm or cool in all environments. Twelve vents provide air distribution to keep the operator comfortable and to give rapid defrosting of all windows. Heating and air conditioning are standard and the recirculation filter is positioned for easy servicing.

Storage Space. More storage space to create a secure and uncluttered working environment.

Steering Column. Offers telescoping and tilting features to provide a comfortable driving position.

Suspended Pedals. Are easier to reach and create more leg and foot room. They also make for easier cleaning of the cab floor.

Cat Comfort Seat. The new Cat Comfort air suspension seat enhances operator comfort with a dual-sided support recliner and thicker cushions. It is fully adjustable to provide an optimal driving position.

Trainer Seat. The full-size trainer seat features a fully padded seat with a backrest and a seatbelt for a comfortable, secure ride.

Ease of Operation

Designed for Simple, Easy Operation, the 730 Allows the Operator to Focus on Production.

Ergonomic Layout. The controls and layout of the 730's cab are designed to make it as easy to operate as your car. Quick and easy to read and simple to operate, the controls on the 730 allow the operator to concentrate on production.

Dash. All controls are within easy reach of the operator and the non-metallic materials give an automotive feel.

Viewing Area. The low sloping hood and placement of the engine cooling package behind the cab give the 730 the best all-round viewing of any truck in the industry. This increases operator confidence and speeds up cycle times.

Diff Lock Controls. The switch for the inter-axle differential lock has been positioned in the operator's footrest for ease of operation. A dash-mounted switch is all that is required to select full driveline lock-up. Disengaging the foot switch disengages all differential locks immediately.

Transmission and Hoist Levers. The hoist lever has been redesigned and relocated to provide easy and comfortable operation. The transmission lever continues to offer excellent comfort along with controls for top gear limit, transmission hold and neutral lock.

Electronic Monitoring System (EMS II). Constantly monitors critical machine functions and alerts operators to potentially damaging problems before failures occur. It also indicates when certain functions are in use.

Serviceability

More time on production, less time and less money, spent on servicing.

Extended Service Intervals. Increased engine oil change and hydraulic oil change intervals and wheel-bearing adjustment completely eliminated.

Test and Lube Points. Test points are grouped together behind the cab and accessible from the ground. Lube points are grouped at the rear of the front frame and the front of the rear frame.

Radiator. The radiator package is located behind the cab, which provides improved protection from frontal impacts and offers improved access to both inlet and outlet sides of the radiator.

Extended Life Coolant. Extends the change interval as well as improving water pump life by reducing aluminum corrosion.

Hood. The hood is raised and lowered electrically requiring minimal operator effort when servicing. A manual override is also provided.

Electrical Service Center. Located inside the cab this provides a power port, diagnostic connector and the Cat data link connector.

Cat Data Link Connector. The Cat data link connector provides a plug-in using a laptop computer with Electronic Technician (ET) software. The Cat data link port performs programming functions on all electronic controls.

Service Points. Engine and transmission dipstick and fill caps, air and fuel filters and the fuel priming pump are all mounted on the left side of the engine under the hood. Coolant level indicator and fill caps are outside the cab.

Complete Customer Support

Cat dealer services help you operate longer with lower costs.

Selection. Make detailed comparisons of the machines you are considering before you buy. What are the job requirements, machine attachments and operating hours? What is your need for machine availability and do you need or have the proper loading tool match? Your Cat dealer can help.

Purchase. Look past initial price, look at the value the 730 offers. Consider the resale value, compare productivity and day-to-day operating costs and fuel consumption. Consult your local Cat dealer for financing options.

Operation. For the best operating techniques to increase productivity and your profit turn to your Cat dealer for the latest training literature and trained staff.

Maintenance. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as S•O•S℠ and Technical Analysis help you avoid unscheduled repairs.

Replacement. Repair or rebuild? Caterpillar Articulated Trucks are designed for a longer life with rebuildable components. Your Cat dealer can help you evaluate the cost involved so you can make the right choice.

Product Support. The 730 offers easy maintenance with combined service points and extended service intervals to keep the machine running longer. Your local Cat dealership will be with you every step of the way with its unsurpassed worldwide parts support, trained technicians and customer support agreements.

Warranty. Your local Cat dealer is there to support and protect you. Extended warranty options are also available.

Engine

Cat 3196C ATAAC	
Ratings	2200 rpm
Gross Power	242.3 kW/325 hp
Flywheel Power	
ISO 9249	228 kW/305 hp
EEC 80/1269	228 kW/305 hp
Bore	130 mm
Stroke	150 mm
Displacement	12 liters

- The 730 meets TierII/Stage 2 emission specifications for the U.S. and Europe.
- No engine derating required below 4572 m.

Transmission

Forward	km/h
1	7.1
2	13.4
3	20.4
4	31.2
5	43.5
6	51.3
Reverse	
1	7.9

Weights

Rated Payload	27.2 t

Body Capacities

Heaped SAE 2:1	16.3 m^3
Struck	12.5 m^3
Heaped SAE 1:1	20.1 m^3

Body Hoist

Two single-stage, double-acting hoist cylinders.

- cylinders positioned within body profile for maximum protection
- 70° hoist angle with power up and down for clean load ejection and fast dump cycles
- power up, 11 seconds; power down, 9.5 seconds

Operating Weights

Empty	kg
Front axle	12 350
Center axle	5000
Rear axle	5150
Total	22 500
Rated Load	
Front axle	2560
Center axle	12 330
Rear axle	12 330
Total	27 220
Loaded	
Front axle	14 910
Center axle	17 330
Rear axle	17 480
Total	49 720

Body Plate Thickness

Front	8 mm
Scow	14 mm
Side	12 mm
Base	14 mm

Service Refill Capacities

	Liters
Fuel Tank	310
Cooling System	85
Hydraulic System	150
Engine Crankcase	31
Transmission	36
Final Drives/Differential	132
Output Transfer Gear	20

Sound Levels

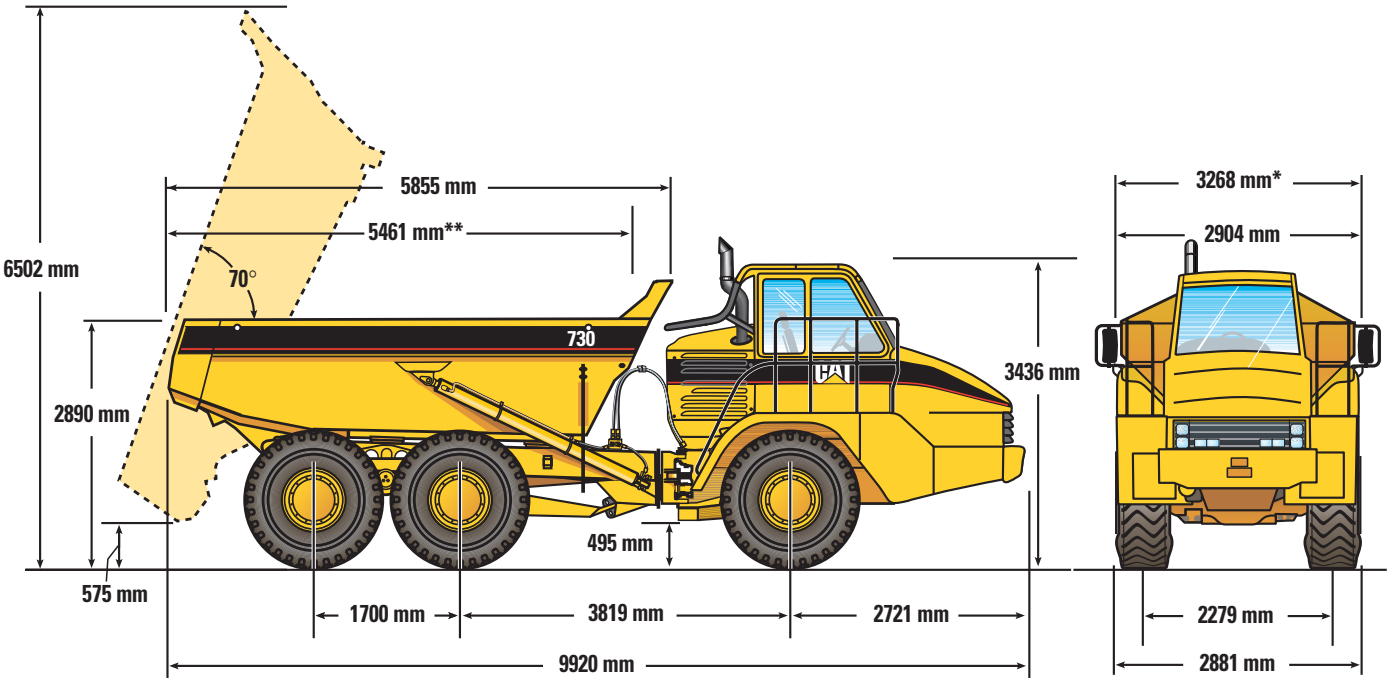
Interior Cab	76 dB(A)

Standards

Brakes	ISO 3450-1998
Cab/FOPS	ISO 3449-1992 Level II
Cab/ROPS	ISO 3471-1994

Dimensions

All dimensions are approximate.

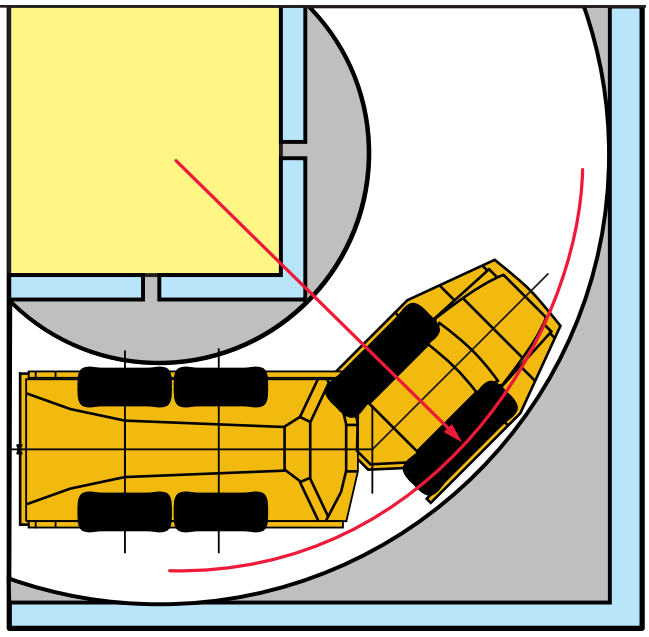


* if equipped with a scissor tailgate
** Inside of body

Turning Circle

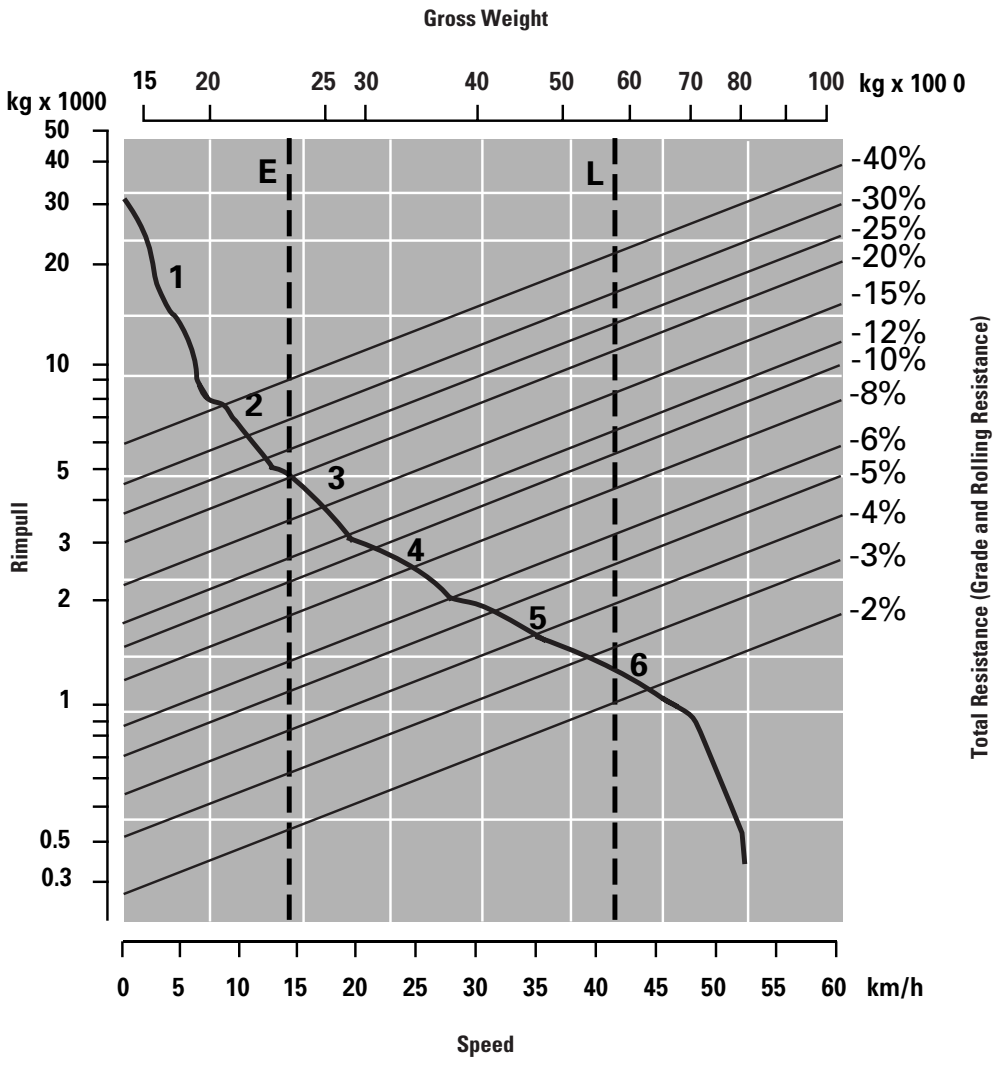
Dimensions are for machines equipped with 23.5R25 and 30/65 tires.

Turning dimensions	23.5	30/65
Steer angle – left/right	45°	45°
SAE turning radius	7255 mm	7255 mm
Clearing radius	7590 mm	7700 mm
Inside radius	3713 mm	3630 mm
Aisle width	4965 mm	5135 mm



Gradeability/Speed/Rimpull

To determine performance, read from Gross Weight down to % Total Resistance. Total Resistance equals actual % grade plus 1% for each 10 kg/metric ton of Rolling Resistance. From this point, read horizontally to the curve with the highest attainable speed range. Then, go down to Maximum Speed. Usable Rimpull depends on traction available.



E – Empty 22 500 kg

L – Loaded 49 720 kg

1 – 1st Gear

2 – 2nd Gear

3 – 3rd Gear

4 – 4th Gear

5 – 5th Gear

6 – 6th Gear

Standard Equipment

Standard and optional equipment may vary. Consult your Caterpillar dealer for specifics.

Air conditioning with R134A refrigerant
Air vents, adjustable
Back up alarm
Body, adapted for exhaust heat
Differentials, clutched cross-axle for all axles
Electrical system, 24-volt
Ether starting aid
Glass windows, toughened and tinted, front and rear.
Guards: rear window and radiator, crankcase and axle
Headlights, four with dimmer switch
Heater and defroster with three speed fan
Horn, electric
Lights: cab interior, front, side, rear, two reversing/working lights, two stop/tail lights
Mirrors, left and right
Mud flaps, body mounted
Radio ready
Retarder
ROPS/FOPS cab, with full instrumentation, including:
- Electronic Monitoring System panel:
  - alternator
  - coolant temperature
  - brake oil pressure
  - engine oil pressure
  - low fuel indicator
- Gauges:
  - fuel (in cab)
  - torque convertor temperature
- Indicator lights:
  - direction, hazard
  - headlights, high beam only
  - cross axle differential lock-up
  - parking brake
  - transmission/torque convertor lock-up
- Meters
  - service hour meter
  - speedometer
  - tachometer

Seat, Caterpillar comfort seat with Air Suspension
Seat, padded companion/trainer
Two retractable seat belts
Sun visor
Storage – thermos holder, under seat storage, door pocket, behind seat storage, coat hook.
S•O•S℠ sampling valves
Spill guard, front, integral part of fabricated body
Supplemental steering
Tires, six 23.5R25, radial
Tool box, lockable
Tow pins front and rear
Vandalism protection: lockable caps for fuel tank, hydraulic oil tank and radiator
Windows opening side, tinted
Windshield wiper and washer, intermittent

Optional Equipment

Standard and optional equipment may vary. Consult your Caterpillar dealer for specifics.

Body connection for exhaust heat
Body liners
Ether starting aid
Sound suppression spectator
Starting receptacle, electric, remote
Tailgates:
  scissor-type
  underslung
Tires:
  30/65R25, 660/65 R25, 750/65R25
  radial tires
Tool kit
Wiper/washer, rear window intermittent
Heated rearview mirrors

Custom Products

The 730 is compatible with a wide range of Caterpillar and auxiliary equipment manufacturers' specialized products. This multi-purpose hauling system was designed for use with a common tractor and a variety of trailer options to suit different market segments such as: waste, forestry, tunneling, earthmoving and agriculture. For more information, contact your local Cat dealer.

730 Articulated Truck

HEHM5395 (12/2000) hr

Materials and specifications are subject to change without notice.
Featured machines in photos may include additional equipment.
See your Caterpillar dealer for available options.

www.CAT.com

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